



P53821C (CPA / Small Entity) 16 July 1999

Applicant: RICHARD G. HYATT JR.

S.N.: 08/720,070

Filed: 27 September 1996

For: ELECTROMECHANICAL CYLINDER PLUG.

Document(s) filed:

1. AMENDMENT
2. Check #33282 for \$45.00 & Fee Transmittal



COPY

FEE TRANSMITTAL

Patent fees are subject to annual revision on October 1.

These are the fees effective October 1, 1997.

Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12. See 37 C.F.R. §§1.27 and 1.28.

Complete If Known	
Application Number	08/720,070 (filed on 27 September 1996)
Filing Date	CPA filed on 8 July 1999
First Named Inventor	RICHARD G. HYATT JR.
Examiner Name	BOUCHER, D.
Group/Art Unit	3627
TOTAL AMOUNT OF PAYMENT	(\$).45.00
Attorney Docket No.	P53821C

METHOD OF PAYMENT (check one)

1. The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number: 02-4943
Deposit Account Number: _____

- Charge Any Additional Fee Required Under 37 C.F.R. §1.16 and 1.17. Charge the Issue Fee Set in 37 C.F.R. §1.18 at the Mailing of the Notice of Allowance.

2. ■ Payment Enclosed:

(CHECKS #33282)

 Check Money Order Other**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Small Entity

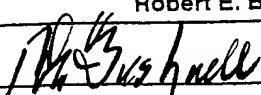
Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
101	760	201	380	Utility filing fee	\$
106	310	206	155	Design filing fee	\$
107	480	207	240	Plant filing fee	\$
108	760	208	380	Reissue filing fee	\$
114	150	214	75	Provisional filing fee	\$
SUBTOTAL (1)		(\$).00			

3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Description	Fee Paid		
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
105	130	205	65	Surcharge-late filing fee or oath	\$
127	50	227	25	Surcharge-late provisional filing fee or cover sheet	\$
139	130	139	130	Non-English specification	\$
147	2,520	147	2,520	For filing a request for reexamination	\$
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	\$
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	\$
115	110	215	55	Extension for reply within first month	\$
116	380	216	190	Extension for reply within second month	\$
117	870	217	435	Extension for reply within third month	\$
118	1,360	218	680	Extension for reply within fourth month	\$
128	1,850	228	925	Extension for reply within fifth month	\$
119	300	219	150	Notice of Appeal	\$
120	300	220	150	Filing a brief in support of an appeal	\$
121	260	221	130	Request for oral hearing	\$
138	1,510	138	1,510	Petition to institute a public use proceeding	\$
140	110	240	55	Petition to revive - unavoidable	\$
141	1,210	241	605	Petition to revive - unintentional	\$
142	1,210	242	605	Utility issue fee (or reissue)	\$
143	430	243	.215	Design issue fee	\$
Total claims	-20** =	5	x 9.00 =	45.00	
Independent Claims	- 3** =	x	=		
Multiple Dependent			=		
** or number previously paid, if greater; For Reissues, see below					
Large Entity		Small Entity		Fee Description	
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
103	18	203	9	Claims in excess of 20	
102	78	202	39	Independent claims in excess of 3	
104	260	204	130	Multiple dependent claim, if not paid	
109	78	209	39	** Reissue independent claims over original patent	
110	18	210	9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)		(\$).45.00		** Reduced by Basic Filing Fee Paid	
				SUBTOTAL (3)	\$0.00

SUBMITTED BY

Complete (if applicable)

Typed or Printed Name	Robert E. Bushnell, Esq.			Reg. Number	27,774
Signature		Date	16 July 1999	Deposit Account User ID	

COPY

COPY

ROBERT E. BUSHNELL

LAW OFFICES
1522 K ST., NW, SUITE 300
WASHINGTON, DC 20005-1202
(202) 638-5740

33282

Security features included. Details on back.

7/16/1999

\$ 45.00

DOLLARS

P53821C

COPY

*** This is a copy.
Do Not Cash This.**

**PAY TO THE
ORDER OF**

**U. S. Department of Treasury
Forty-Five and 00/100*****
Commissioner of Patents
& Trademarks
Washington, D.C. 20231
Box: PTO prosecution
MEMO 08/720,070 (CPA) SMALL ENTITY**

**MP
116 78 48671**

081064/3-96

COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

RICHARD G. HYATT JR.

Serial No.: 08/720,070 (CPA application) Examiner: BOUCHER, D.

Filed: 27 September 1996 Art Unit: 3627

For: ELECTROMECHANICAL CYLINDER PLUG

AMENDMENT

Assistant Commissioner
for Patents
Washington, D.C. 20231

Sir:

Entry of the following amendments in response to the final Office actions (Paper No 20) dated 8 February 1999, entry of the following amendments and remarks, and re-examination and reconsideration, are respectfully requested.

Folio: P53821C
Date: 07/16/99
I.D.: REB/kf

COPY

IN THE CLAIMS

Please amend Claims 6, 11 through 13, 25, 26, 28, 29, 31, and 32 and add Claims 34 through 38, as follows:

1 6. (Thrice Amended) A lock, comprising:

2 a cylinder containing a hollow recess defining a longitudinal axis;
3 a plug bearing a plurality of open radially oriented apertures forming an array, said
4 plug being rotatable around said longitudinal axis while resident within said hollow recess, said plug
5 comprising:

6 a first base bearing a keyway providing a first electrical conductor and an
7 orifice spaced-apart from and separated by a mass of said plug from said keyway;

8 a second base separated by an axial length of said plug from said first base,
9 said second base bearing means for supporting a cam;

10 an exterior surface extending between and engaging said first base and said
11 second base;

12 a sidebar positioned between said first base and said second base to reciprocate
13 between a first location with said sidebar simultaneously engaging said plug and said cylinder
14 surrounding said plug, and a second location releasing said plug for rotation relative to the cylinder;

15 locking means disposed within said apertures to reciprocate relative to said cylinder
16 in response to a key inserted into said keyway to accommodate reciprocation of said sidebar relative
17 to said plug and relative to said cylinder when the key while inserted into said keyway engages in

18 a selected relation with said locking means, and obstructing said reciprocation absent said selected
19 relation;

20 a second electrical conductor terminating with an electrical contact exposed to an
21 exterior of said first base through said orifice;

22 an electronic logic circuit borne by said plug, coupled to receive electrical power and
23 data signals via said first and second electrical conductors, and generating control signals in
24 dependence upon said electrical power and data signals; and

25 an electrical operator borne by said plug, disposed within one of said apertures, said
26 operator having a distal member radially [reciprocating] traveling along an axis transverse to said
27 longitudinal axis, in dependence upon said control signals between a first position relative to said
28 exterior surface accommodating said reciprocation and a second and different position relative to
29 said exterior surface obstructing said reciprocation in concert with said locking means[, said
30 reciprocation].

11. (Twice Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an [intenser]
3 interior cylindrical surface;

4 a plug rotatable around said longitudinal axis while resident within said hollow
5 recess, and a bar interposed between said shell and said plug to reciprocate generally along a radial
6 [plate] plane between a first position engaging both said shell and said plug while obstructing
7 rotation of said plug within said recess, and a second position accommodating said rotation[;], said

8 plug comprising:

9 a first base bearing a keyway providing a first electrical conductor and an
10 orifice spaced-apart from and separated by a mass of said plug from said keyway;

11 a second base separated by an axial length of said plug from said first base,
12 said second base bearing means for supporting a cam;

13 an exterior surface extending between and engaging said first base and said
14 second base;

15 locking means responsive to a key inserted into said keyway to accommodate
16 reciprocation of said bar between said first position and said second position when the key
17 while inserted into said keyway engages in a selected relation with said locking means and
18 obstructing said reciprocation absent said selected relation;

19 a second electrical conductor terminating with an electrical contact exposed
20 to an exterior of said first base through said orifice;

21 an electronic logic circuit coupled to receive electrical power and data signals
22 via said first and second electrical conductors, and generating control signals in dependence
23 upon said electrical power and data signals; and

24 an electrical operator having a distal member radially reciprocating along an
25 axis transverse to said longitudinal axis, in dependence upon said control signals between
26 a first orientation relative to said exterior surface enabling said reciprocation and a second
27 and different orientation relative to said exterior surface obstructing said reciprocation.

1 12. (Amended) The plug of claim 1, [with] further comprised of said:

2 [locking means comprising a sidebar movably borne by said plug with an edge of said
3 sidebar disposed to engage the cylinder; and]

4 electrical operator comprising an electrical coil coaxially aligned with said distal
5 member, to [displace] move said distal member [from] between said [first] second position [to] and
6 said [second] first position in response to said control signals; and

7 [said] distal member bearing a circumferential surface blocking said [radial
8 movement of said sidebar] reciprocation while said distal member is in said second position, and a
9 [groove] variation in said circumferential surface accommodating said [radial movement]
10 reciprocation while said distal member is in said first position.

1 13. (Amended) The plug of claim 6, [with] further comprised of said:

2 [locking means comprising a sidebar movably borne by said plug with an edge of said
3 sidebar disposed to engage the cylinder; and]

4 electrical operator comprising an electrical coil coaxially aligned with said distal
5 member, to [displace] more said distal member [from] between said [first] second position [to] and
6 said [second] first position in response to said control signals; and

7 [said] distal member bearing a circumferential surface blocking said radial movement
8 of said sidebar while said distal member is in said second position, and a [groove] variation in said
9 circumferential surface accommodating said [radial movement] reciprocation while said distal
10 member is in said first position.

1 25. (Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an [intensor]
3 interior cylindrical surface;

4 a plug rotatable around said longitudinal axis while resident within said hollow
5 recess[,];

6 a bar interposed between said shell and said plug to reciprocate generally along a
7 radial [plate] plane between a first position engaging both said shell and said plug while obstructing
8 rotation of said plug within said recess, and a second position accommodating said rotation, said
9 plug comprising:

10 a first base and a second base separated by an axial length of said plug from said first
11 base, said second base bearing means for supporting a cam; and

12 an electrical operator[,] bome by said plug and rotatable with said plug, said electrical
13 operator being electrically operable to respond to a control signal by moving between a first
14 orientation and a second and different orientation providing obstruction of said bar.

1 26. (Amended) The lock of claim 25, [with said electrical operator, responsive to] further
2 comprised of

3 a logic circuit generating said control [signals] signal in response to a comparison
4 between a code set within said logic circuit and a data signal applied to said logic circuit; and
5 said electrical operator moving between said second orientation and said first

COPY

6 orientation in response to said control signal [from a logic circuit].

1 28. (Amended) The lock of claim 27, [wherein] further comprised of a locking mechanism
2 borne by said plug, said plug being perforated by an aperture admitting reciprocal travel of a key
3 relative to said locking mechanism, and said locking mechanism obstructing movement of said plug
4 relative to said shell absent the key [engages in] exhibiting a selected relation with said locking
5 [means] mechanism.

1 29. (Amended) The lock of claim 25, further comprised of a plurality of electrical
2 conductors borne by said lock to engage a circuit in [the] a key inserted into said plug.

1 31. (Amended) The lock of claim 30, further comprised of said power source being mounted
2 on [the] a key.

1 32. (Amended) The lock of claim 25, further comprised of a network of plugs including said
2 plug, and a switching device controlling operation of said network.[.]

1 --34. The lock of claim 1, further comprised of said:

2 electrical operator comprising an electrical coil moving said distal member, to
3 reciprocate said distal member between said first position and said second position in response to
4 said control signals; and

COPY

5 said distal member bearing a circumferential surface blocking said radial movement
6 of said sidebar while said distal member is in said second position, and accommodating said radial
7 movement while said distal member is in said first position.

1 --35. The lock of claim 6, further comprised of said:

2 electrical operator comprising an electrical coil moving said distal member, to
3 reciprocate said distal member between said first position and said second position in response to
4 said control signals; and

5 said distal member bearing a circumferential surface blocking said radial movement
6 of said sidebar while said distal member is in said second position, and accommodating said radial
7 movement while said distal member is in said first position.

1 --36. The lock of claim 16, further comprising said distal member bearing a mass engaging
2 said detent and blocking said rotation while said distal member is in said first position, and a groove
3 through said mass accommodating relative passage between said distal member relative to said
4 detent while said distal member is in said second position.

1 --37. The lock of claim 16, further comprising said distal member bearing a mass exhibiting
2 a first height accommodating relative passage between said distal member relative to said detent
3 while said distal member is in said second position, and a second and greater height engaging and
4 blocking said rotation while said distal member is in said first position.

1 --38. The lock of claim 16, further comprising said distal member bearing a mass having a
2 periphery engaging said detent and blocking said rotation while said distal member is in said first
3 position, and a central variation in said mass relative to said periphery accommodating relative
4 passage between said distal member and said detent while said distal member is in said second
5 position.

- - - - -

REMARKS

Claims 1 through 38 are pending in this application. Claims 6, 11 through 13, 25, 26, 28, 29, 31, and 32 have been amended and Claims 34 through 38 have been newly presented in order to alternatively and more broadly define the various features of Applicant's disclosed inventions.

In Paper No. 17 the Examiner noted that Claims 12 and 13 define Applicant's second borne. In order to broaden the scope of coverage defined by Claims 12 and 13, Applicant has deleted lines 2 and 3, in accordance with the Examiner's suggestion. Dependent Claims 34 and 35 are newly added to more broadly define Applicant's disclosed structure, and to additionally cover possible modifications of Applicant's disclosed structures such as the circumferential surface constituting a ridge while the adjoining surface constitutes a second circumferential surface with a lesser diameter, for example.

These claims are allowable for the reasons set forth in Applicant's earlier response and, in view of the complete absence of the combination of features defined by these claims, in any of the prior art.

Applicant notes that the designation of Paper No. 17 as "final" is premature; Claims 25 through 33 have not yet been considered. Applicant notes however, that the Examiner incorrectly addressed Paper No. 17. Without correspondence to Applicant, the Examiner then issued Paper No. 20.

In Paper No. 20, the Examiner objected to Claims 11, 25 and 32. The basis for the objection has been removed by the foregoing amendments.

Claims 12, 13, 28, 29 and 31 through 33 were rejected under the second paragraph of 35 U.S.C. §112, principally on questions of antecedent basis. The grounds for these rejections have been removed by the foregoing amendment. In one exception however, the Examiner questions Claims 32 and 33, namely a network of plugs. These claims depend upon allowable independent claims as will be explained in the following paragraph. Accordingly, there is no basis for the quasi-requirement of restriction, particularly at this point of prosecution. Moreover, the parent independent claim is generic to several of the classes previously identified in the requirement for restriction. In view of the foregoing amendments therefore, this rejection should be withdrawn.

Claims 25 through 33 were rejected under 35 U.S.C. §103(a) as rendered obvious by a proposed combination of Aston '042 and Clarkson '859. Although Applicant disagrees with the basis for this rejection, Applicant notes that as amended, Claim 25 clearly recites that the electrical operator is borne by the plug, a feature neither taught nor suggested by the proposed combination of Aston '042 and Clarkson '859. Specifically, in this proposed combination both the operator and the logic circuits are located outside of plug 11 of Aston '042. The structure shown for example, in Figs. 5-6B of the secondary reference preserve this location. In view of the fact that neither of these reference either appreciates nor recognizes the need for compactedness as well advantageous ability of retrofitting a lock simply by replacing the plug, as opposed to both the plug in the cylinder or,

alternatively, of structurally modifying the entire lock, negates any suggestion of obviousness. Accordingly, Claims 25 through 35 are deemed to be patentably distinguishable over the art.

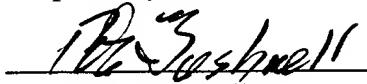
The Examiner has referred to a telephone discussion initiated by the Examiner on 18 January 1999. It should be remembered that Applicant's undersigned attorney was engaged in the preparation of a different and unrelated application at the time of the discussion, and was unable to immediately respond to the Examiner's telephone request. Moreover, the Examiner immediately issued Paper No. 17 on 21 January 1999. The Supplemental Amendment filed on the 20th had been in preparation and there was no reason not to immediately file the Supplemental Amendment in order to present the claims desired by Applicant for examination. The Examiner's care to review these claims is noted with appreciation.

A fee of \$45 (**SMALL ENTITY**) is incurred by addition of five (5) claims in excess of 33. Applicant's checks drawn to the order of Commissioner accompanies this Amendment. Should the check become lost, should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Applicant further notes that two Notices of Change of Address have been filed in this application; to date, the Group Director seems to have studiously ignored both. Consequently, Applicant is not timely receiving correspondence from the Office. It is hoped that this will be corrected without further inconvenience or expense to the Applicant.

In view of the foregoing, the Examiner is respectfully requested to reconsider the application, withdraw the objections and/or rejections and pass the application to issue in view of the above amendments and/or remarks. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

Respectfully submitted,



Robert E. Bushnell,
Attorney for the Applicant
Registration No.: 27,774

1522 "K" Street N.W., Suite 300
Washington, D.C. 20005
(202) 638-5740

Folio: P53821C
Date: 7/16/99
I.D.: REB/kf